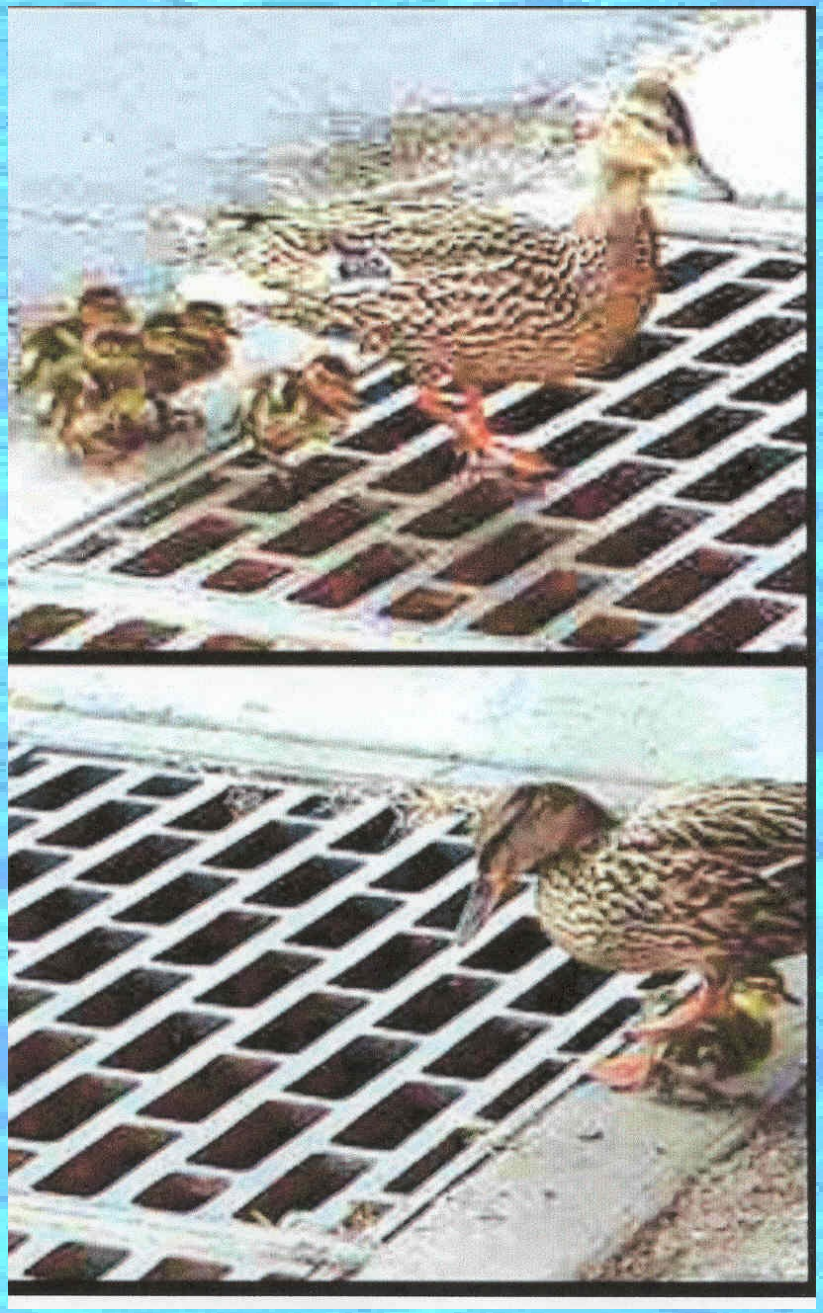
Vancouver's Water Protection Program

EPA NPDES Phase II Workshop –

Presented by: Richard Hoiland and Annette Jakubiak

City of Vancouver Engineering Services



What Are the Concerns?

- **Contaminants entering stormwater systems and waterways.**
- **Pollutants seeping into groundwater.**
- **Threats to community health and the environment.**

- **Millions of $$$ to clean up water resources.**

How are Contaminants Getting into Our Water Resources?

Illicit and Accidental Discharges

- **Leaks and Overflows**
- **Unpermitted Connections**
- **Dumping and Abandonment**
- **Operator Error**
- **Equipment Failure**
- **Poor Design or Construction**

Creating a Water Protection Ordinance *What Were The Drivers?*

- **Groundwater contamination in Vancouver**
- **Comply with NPDES Phase II Stormwater Permit requirements**
- **Comply with Washington's Growth Management Act**
  (designate and protect Critical Aquifer Recharge Areas)

Technical Subcommittee

Balancing Perspectives

- **Citizens and Environmental Advocates**

- **Regulators**
  Stormwater, Fire, Pretreatment
  County & State

- **Industry Representatives**
  Columbia Business Center,
  Port of Vancouver

Business Perspective

Environmentalist Perspective

Regulator Perspective

Goals of the Ordinance

- **Develop *technically sound* provisions that protect water resources.**
- **Make them reasonable and enforceable.**
- **Minimize unnecessary and redundant regulations.**
- **Rely on cooperation and technical assistance.**

Ordinance Provisions

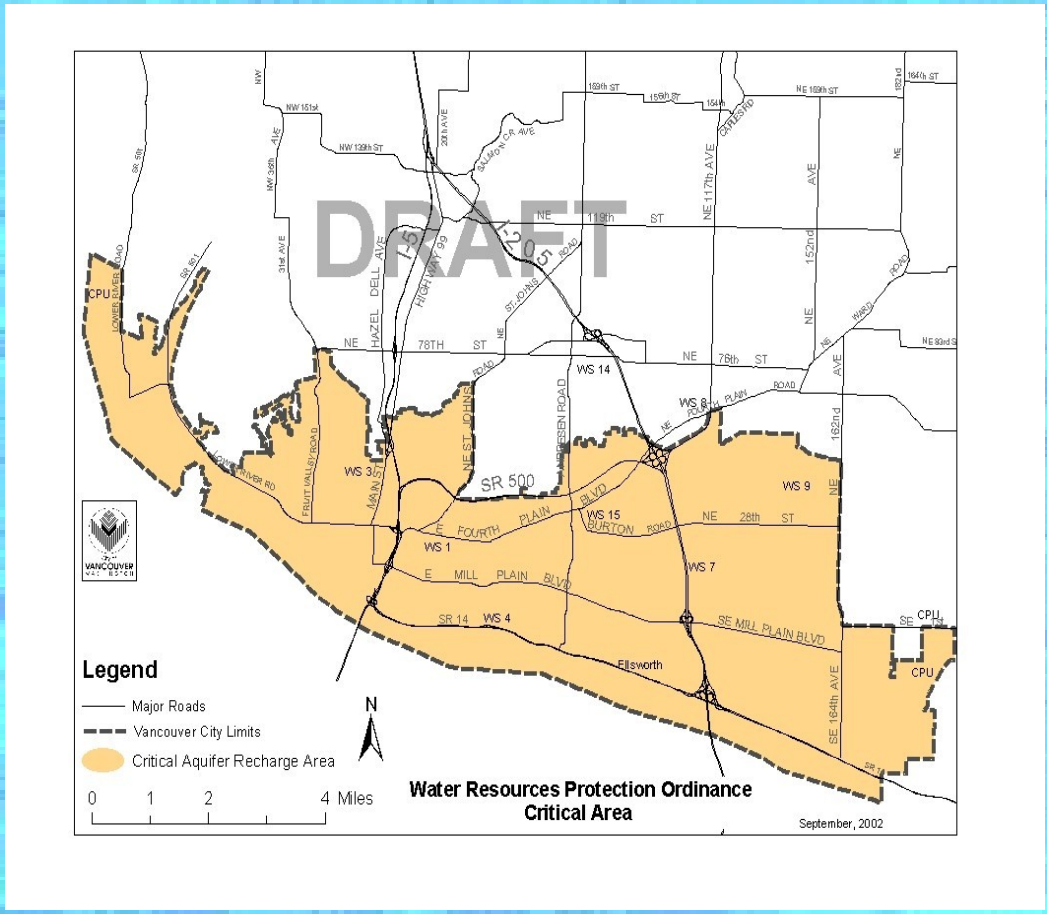
- **Combine**
  Ground Water
  AND
  Surface Water
  Protection

National Pollution Discharge Elimination System (NPDES) Phase II Stormwater Permit Minimum Control Measures

1. **Public Education And Outreach**
2. **Public Involvement/Participation**
3. **Illicit Discharge Detection & Elimination**
4. Construction Site Runoff Control
5. Post-construction Stormwater Management
6. **Pollution Prevention Good Housekeeping**

Ordinance Provisions

- **Designate City as a "Critical Area"**
- **Apply Minimum Standards**



Minimum Standards
for All

Best Management Practices (BMP's):

- **Stormwater Systems**
- **Hazardous Material Management**
- **Pesticides and Fertilizers**

Greater Standards
for Hazardous Material Management

- **Define Higher Risk Operations**
  Class I and Class II
- **Structural Best Management Practices**
- **Spill and Emergency Response Plan**
- **Inspections and Training Programs**

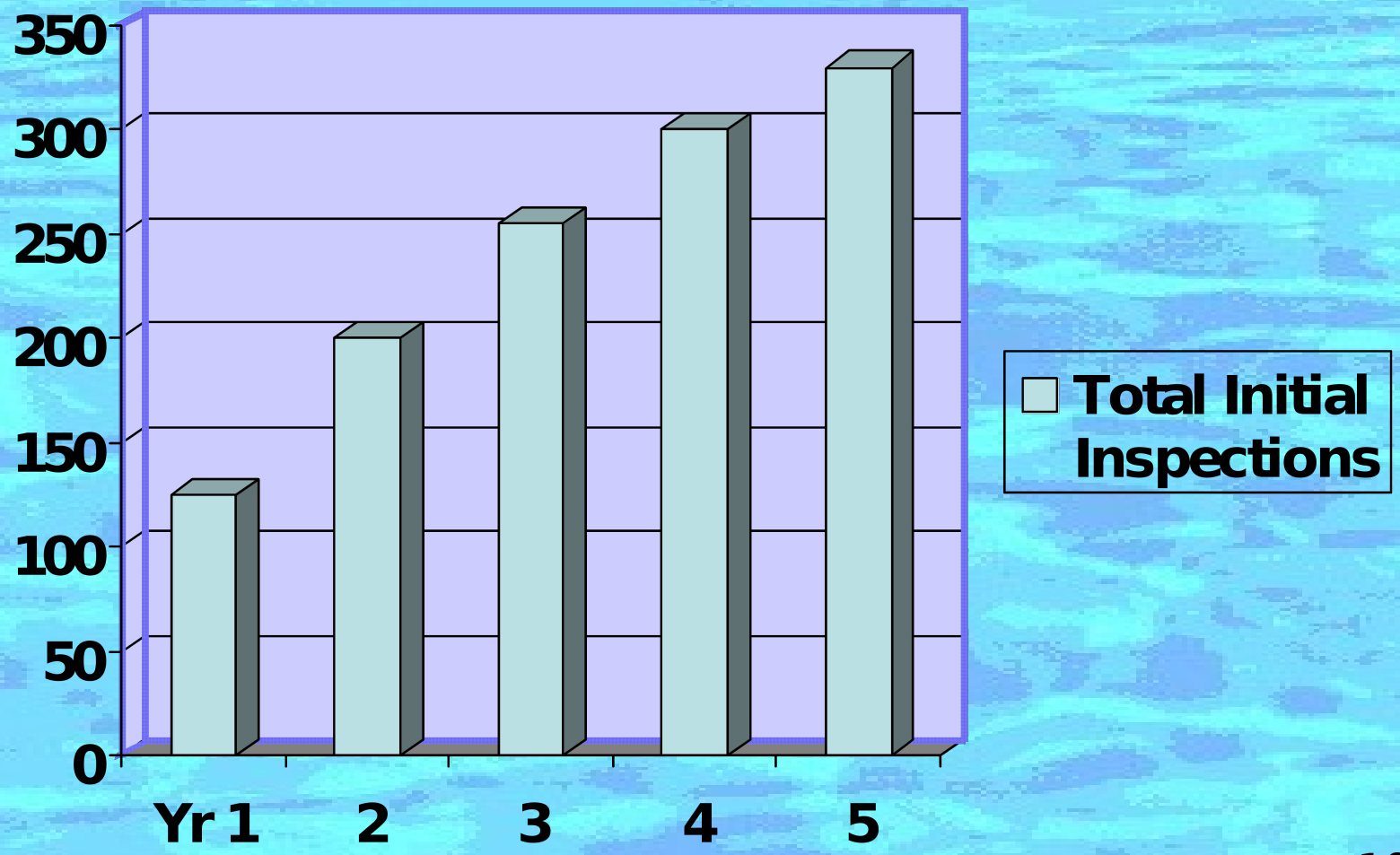
Accomplishments

- ***2003 Environmental Excellence Award***
- **Dept. of Ecology *Centennial Grant***
- **Completed a Public Opinion Survey**
- **Initiated Inspection and Outreach Programs**

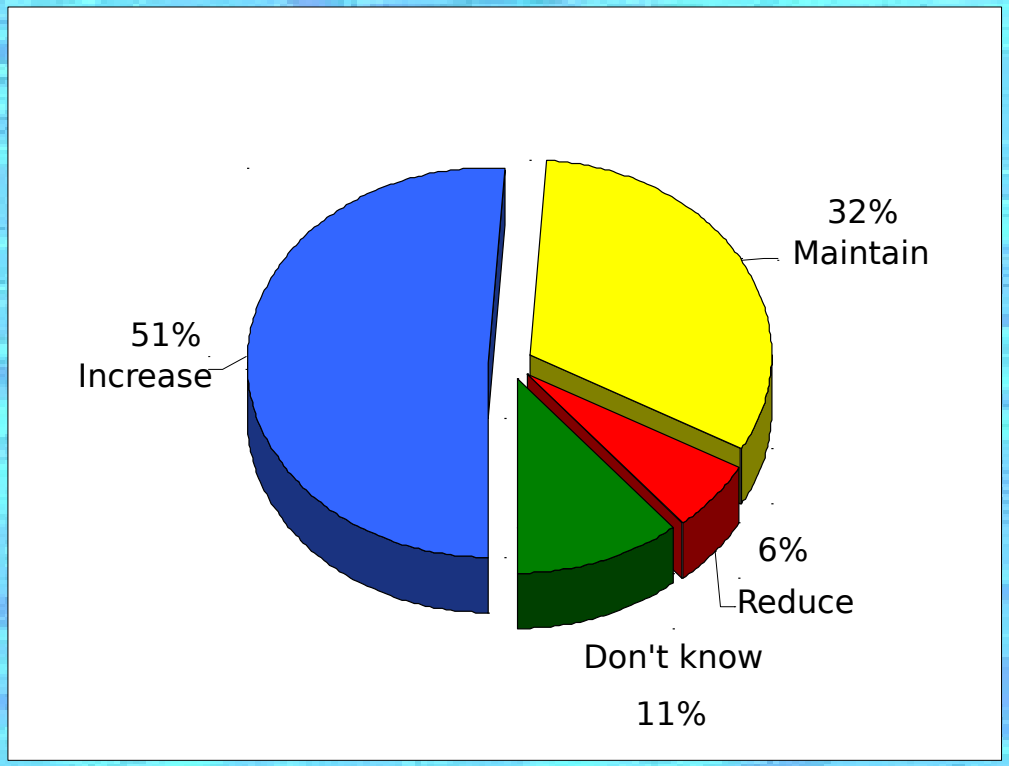
Funding a Water Protection Program

Annual Program Costs Up to 350 Facilities	Approx. Range
Program Coordinator – full time	$40,000 – 90,000
Inspector – full time	$40,000 – 90,000
Outreach Specialist – half time	$15,000 – 40,000
Equipment – computers, camera	$0 – 10,000
Services – database, brochures	$5,000 – 40,000
Outreach Campaigns	$0 – 30,000
Full Program – Total Cost Range	$100,000 – 300,000

Scenario of Diminishing Returns



Public Opinion Survey



Survey Question No. 20: ***In your opinion, should the City of Vancouver reduce, maintain or increase their involvement in environmental affairs and enforcement?***

Starting an Inspection Program
3 Main Aspects

1. **Identify Potential Businesses and Industries**
   - **Define businesses to inspect**
   - **EPA web databases**
   - **Department of Ecology web databases**
   - **Tier II list from Fire Department**
   - **City Pretreatment permittees**
   - **Department of Revenue list with SIC codes**
   - **Phone book**

Starting an Inspection Program

2. How Do We Approach Businesses?
   - Offer education and technical assistance with enforcement as a last resort
   - Highest potential risks first
   - Introduction letter with survey
   - Tag along with other agency inspections
3. Documentation
   - Send businesses an inspection report with action items
   - Database considerations

Ongoing Issues

- **Where does WRPO stop and State/Federal begin?**
- **Existing facilities action items are based on current risk to water resources.**
- **Interactions with other City departments.**
- **Follow ups – time consuming.**
- **Database maintenance – time consuming.**
- **Ordinance improvements.**

Facility Inspection Program

Inspection Statistics	
Sites	As of Sept. 2004
Initial Inspections (Class I & Class II)	77
Complaints/Referrals	28
Estimated Class I / II Facilities - Total	350

Facility Inspection Program

Inspection Results	
Action Items Sent to Facilities	**As of Sept. 2004**
Improve Secondary Containment	**9**
Prepare Spill Response Plan	**6**
Floor Drains - Seal or Convert to Sanitary Sewer	**18**
Register Dry Wells	**28**
General Housekeeping	**~80%**
Civil Penalties	**$ 0**

Inspection Program
WRPO Fills a Regulatory Gap

Chemical Storage and Process Tanks

- **Not Oil Storage Tanks**
- **Not Underground Storage Tanks (UST's)**
- **Not "Hazardous Waste"**

Interconnection of Water Resources

- **Groundwater, Surface Water, Storm Water**

The End

***for a copy of the ordinance*:**

www.ci.vancouver.wa.us

The Grate Mate Program

Other Activities

- **Brochures**
  1) Guidelines
  2) Best Management Practices

- **Presentations**

- **Education Campaigns:**
  1) Columbia Springs Environmental Education Center
  2) Stormwater Protection